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BLAKELY SOKOLOFF TAYLOR & ZAFMAN 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			ZHOU, TING	
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

AK

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/022,151	NIE ET AL.	
	Examiner	Art Unit	
	Ting Zhou	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 26 October 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1-8,10-16,18-35,37-59 and 61-66 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-8,10-16,18-35,37-59 and 61-66 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1)  Notice of References Cited (PTO-892)  
 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3)  Information Disclosure Statement(s) (PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_.  
 4)  Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5)  Notice of Informal Patent Application  
 6)  Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The Request for Continued Examination (RCE) filed on 26 October 2007 under 37 CFR 1.53(d) based on parent Application No. 10/022,151 is acceptable and a RCE has been established. An action on the RCE follows.
  
2. The amendments filed on 26 October 2007, submitted with the filing of the RCE have been received and entered. The applicant has added new claims 65-66. Claims 1-8, 10-16, 18-35, 37-59 and 61-66 as amended are pending in the application.

#### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 30-35 and 37-41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106.01 reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

a. Claim 30 defines a system comprising means for performing functions. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – MPEP 2106.01). Although the preamble of independent claim 30 recites a system, the remainder of the claim does not support the preamble. The claimed features and elements of independent claim 30 do not include hardware components or features that are necessarily implemented in hardware. The claimed means can merely be software code for performing the functions. The "system" appears directed to software, per se, lacking any hardware to enable any functionality to be realized. Therefore, the claimed features of claim 30 is actually a software, or at best, directed to an arrangement of software, and software claimed by itself, without being

executed or implemented on a computer medium, is not statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

b. Claims 31-35 and 37-41 are rejected for similar reasons.

4. To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of the applicant amending these claims to place them within the four statutory categories of invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8, 10-16, 20-35, 39-47, 50-59 and 63-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gill et al. U.S. Patent 6,081,262 (hereinafter “Gill”) and Lanier et al. U.S. Patent 5,588,104 (hereinafter “Lanier”).

Referring to claims 1, 30 and 42, Gill teaches a method, system and machine readable medium having instructions comprising receiving a first request to create a scene; receiving a second request to add at least two media objects to the scene (combining a plurality of media objects of multiple diverse types into an integrated presentation) (Gill: column 3, lines 10-15 and

56-62); preparing a translation vector and a rotation matrix for each of the media objects, the rotation matrix and the translation matrix defining an orientation and a location of each of the media objects in the scene (regulating the spatial relationship between the objects within the presentation by coordinating and managing the inputting of data into the plurality of partitions on the presentation; each object placed on the presentation has both a position and extent on the page; the user can further define the orientation and location of the imported objects by zooming, rotating, resizing, etc. the objects ) (Gill: column 3, lines 21-45, column 6, lines 49-50 and column 7, lines 33-48); and building the scene for display, wherein the at least two media objects are included within the scene (viewing the multimedia presentation) (Gill: column 14, lines 18-19 and column 18, lines 17-26), and the scene is translatable and rotatable (using a multi-media authoring tool extension to create a multimedia presentation, the media object of the presentation being able to be translated and rotated via capabilities of zooming, rotating, resizing, etc. the objects) (Gill: column 3, lines 10-45, column 6, lines 49-50 and column 7, lines 1-62). This is further shown in Figure 2 where a plurality of media objects is placed at certain locations on the presentation. However, Gill fails to explicitly teach the created scene is a virtual reality scene, and the processing including associating each media object with a series of views of the object from various orientations and locations in three-dimensional space. Lanier teaches the creation and manipulation of objects on a computer screen (Lanier: column 1, lines 36-45) similar to that of Gill. In addition, Lanier further teaches creating a virtual reality scene (creating a virtual reality world), and associating each object with a series of views of the object from various orientations and locations in three-dimensional space (the virtual objects in the virtual world can be viewed from a plurality of angles or distances in the three-dimensional world) (Lanier:

column 1, lines 10-14, 36-45 and column 2, line 36-column 3, line 5). It would have been obvious to one of ordinary skill in the art, having the teachings of Gill and Lanier before him at the time the invention was made, to modify the method for creating a scene from a plurality of media objects of Gill to include the creation of a virtual reality scene in three-dimensional space taught by Lanier. One would have been motivated to make such a combination in order to provide rapid access and intuitive views of numerous data having a complex structure.

Referring to claims 23 and 53, Gill teaches a method and machine readable medium having instructions comprising storing a first function to allow an application program to create a scene, wherein the scene is to be able to be translated and rotated (using a multi-media authoring tool extension to create a multimedia presentation, the media object of the presentation being able to be translated and rotated via capabilities of zooming, rotating, resizing, etc. the objects) (Gill: column 3, lines 10-45, column 6, lines 49-50 and column 7, lines 1-62); receiving a request for execution of the first function (creating the presentation output using the authoring tool) (Gill: column 3, lines 10-45, column 6, lines 49-50 and column 7, lines 1-62); storing a second function to allow the application program to add at least two media objects to the virtual reality scene responsive to the request to execute the first function (combining a plurality of media objects of multiple diverse types into an integrated presentation) (Gill: column 3, lines 10-15 and 56-62); receiving a request for execution of the second function (combining the plurality of media objects) (Gill: column 3, lines 10-15 and 56-62); and preparing a translation vector and a rotation matrix for each of the media objects, the rotation matrix and the translation matrix defining an orientation and a location of each of the media objects in the scene responsive to the request to execute the second function (regulating the spatial relationship between the objects

within the presentation by coordinating and managing the inputting of data into the plurality of partitions on the presentation; each object placed on the presentation has both a position and extent on the page; the user can further define the orientation and location of the imported objects by zooming, rotating, resizing, etc. the objects ) (Gill: column 3, lines 21-45, column 7, lines 33-48 and column 6, lines 49-50). This is further shown in Figure 2 where a plurality of media objects is placed at certain locations on the presentation. However, Gill fails to explicitly teach the created scene is a virtual reality scene, and the processing including associating each media object with a series of views of the object from various orientations and locations in three-dimensional space. Lanier teaches the creation and manipulation of objects on a computer screen (Lanier: column 1, lines 36-45) similar to that of Gill. In addition, Lanier further teaches creating a virtual reality scene (creating a virtual reality world), and associating each object with a series of views of the object from various orientations and locations in three-dimensional space (the virtual objects in the virtual world can be viewed from a plurality of angles or distances in the three-dimensional world) (Lanier: column 1, lines 10-14, 36-45 and column 2, line 36-column 3, line 5). It would have been obvious to one of ordinary skill in the art, having the teachings of Gill and Lanier before him at the time the invention was made, to modify the method for creating a scene from a plurality of media objects of Gill to include the creation of a virtual reality scene in three-dimensional space taught by Lanier. One would have been motivated to make such a combination in order to provide rapid access and intuitive view of numerous data having a complex structure.

Referring to claims 24 and 54, Gill, as modified, teach storing a third function to render the virtual reality scene and the media objects in the virtual reality scene (presentation mode for

viewing the multimedia presentation) (Gill: column 14, lines 18-19, column 18, lines 17-26 and Figure 5); receiving a request for execution of the third function (user activation of the presentation mode to the view multimedia presentation) (Gill: column 14, lines 18-19, column 18, lines 17-26 and Figure 5); and rendering the virtual reality scene responsive to receiving the request to execute the third function (viewing the multimedia presentation) (Gill: column 14, lines 18-19, column 18, lines 17-26 and Figure 5).

Referring to claims 2, 25, 31, 43 and 55, Gill, as modified, teach receiving a third request to manipulate the virtual reality scene and manipulating the virtual reality scene (allowing the user to edit, manage and manipulate the objects on the multimedia presentation) (Gill: column 3, lines 37-44, column 4, lines 35-44 and column 10, lines 64-67).

Referring to claims 3, 26, 32, 44 and 56, Gill, as modified, teach updating the translation vector and rotation matrix for each of the media objects responsive to receiving the third request to manipulate the scene (as each one of the plurality of media objects are added to the presentation, the presentation is updated to regulate the spatial relationships among the plurality of objects and reflect the new addition) (Gill: column 3, lines 21-44).

Referring to claim 4, Gill, as modified, teach the third request to manipulate is received from an application program (using the authoring tool to manage and manipulate the presentation) (Gill: column 10, lines 64-67 and column 13, lines 63-67).

Referring to claim 5, Gill, as modified, teach the third request to manipulate originates from the user (the user is using the authoring tool to manage and manipulate the presentation) (Gill: column 5, lines 36-44 and column 6, lines 57-59).

Referring to claims 6, 27, 33, 45 and 57, Gill, as modified, teach the third request to manipulate is one of a pan request, a zoom request, and a tilt request (allowing the user to perform operations on the objects within the presentation such as zoom, rotate, etc.) (Gill: column 6, lines 49-63).

Referring to claims 7, 28, 34, 46 and 58, Gill, as modified, teach calling one or more library functions of a plurality of library functions to manipulate the media objects (using one of the tools, or functions of the authoring tool, such as zoom, rotate, resize, etc. to manipulate the objects; for example, creating a button object using the function of the button library pixel editor) (Gill: column 6, lines 49-63 and column 11, lines 44-47).

Referring to claims 8, 29, 35, 47 and 59, Gill, as modified, teach the library functions are included in an operating system enhancement application program interface (the functions used to manipulate the objects are part of the authoring tool) (Gill: column 10, lines 64-67 and continuing onto column 11, lines 1-47).

Referring to claim 10, Gill et al. teach receiving a selection of a first media object of the media objects within the scene (selecting the media objects to rotate, resize, zoom, etc.) (column 6, lines 49-63 and column 11, lines 4-6).

Referring to claim 11, Gill, as modified, teach receiving a third request to manipulate the first media object (allowing the user to edit, manage and manipulate the objects on the multimedia presentation) (Gill: column 3, lines 37-44, column 4, lines 35-44 and column 10, lines 64-67).

Referring to claim 12, Gill, as modified, teach updating the translation vector and rotation matrix for each of the media objects responsive to receiving the third request to manipulate the

first media object (as each one of the plurality of media objects are added to the presentation, the presentation is updated to regulate the spatial relationships among the plurality of objects and reflect the new addition; furthermore, the user can define the position and extent of each object on the presentation) (Gill: column 3, lines 21-44 and column 7, lines 33-37).

Referring to claim 13, Gill, as modified, teach the third request to manipulate originates from the user (the user is using the authoring tool to manage and manipulate the presentation) (Gill: column 5, lines 36-44 and column 6, lines 57-59).

Referring to claim 14, Gill, as modified, teach the third request to manipulate is one of a pan request, a zoom request, and a tilt request (allowing the user to perform operations on the objects within the presentation such as zoom, rotate, etc.) (Gill: column 6, lines 49-63).

Referring to claim 15, Gill, as modified, teach calling one or more library functions of a plurality of library functions to manipulate the media objects (using one of the tools, or functions of the authoring tool, such as zoom, rotate, resize, etc. to manipulate the objects; for example, creating a button object using the function of the button library pixel editor) (Gill: column 6, lines 49-63 and column 11, lines 44-47).

Referring to claim 16, Gill, as modified, teach the library functions are included in a well-known operating system enhancement application program interface (the functions used to manipulate the objects are part of the authoring tool) (Gill: column 10, lines 64-67 and continuing onto column 11, lines 1-47).

Referring to claims 20, 39 and 50, Gill, as modified, teach receiving a designation of a soundtrack to be played in conjunction with displaying the scene (including audio, or sound

objects such as part of a movie, in the multimedia presentation) (Gill: column 1, lines 25-27, column 3, lines 56-65 and column 10, lines 11-21).

Referring to claims 21, 40 and 51, Gill, as modified, teach the soundtrack is to be played by calling one or more library functions of a plurality of library functions (the functions of the authoring tool includes merging objects including movies, audio, etc.) (Gill: column 3, lines 56-65).

Referring to claims 22, 41 and 52, Gill, as modified, teach calling one or more library functions of a plurality of library functions to display the media objects (the authoring tool includes functions allowing it to integrate and display media objects) (Gill: column 3, lines 56-65, column 4, lines 35-44 and Figures 2-3).

Referring to claim 63, Gill, as modified, teach wherein the series of views is determined algorithmically when the media object is added to the virtual reality scene (defining an object via the x, y, z positions of points of the object) (column 2, lines 36-62).

Referring to claim 64, Gill, as modified, teach wherein in response to a request to navigate within the virtual reality scene, replacing a displayed view of the media object in the scene with a different view in the series of views based on the translation vector and rotation matrix to reorient and relocate the object (zooming, rotating, resizing, etc. the objects) (Gill: column 3, lines 21-45, column 6, lines 49-50 and column 7, lines 33-48) to match the navigation (automatically updating the three-dimensional space to reflect user made changes to the objects, allowing users to view the displayed objects from any angle or distance) (Lanier: column 2, line 63-column 3, line 5).

Referring to claims 65 and 66, Gill, as modified, teach receiving a fourth request to build a camera view of the virtual reality scene (the virtual reality scene comprise a camera view, i.e. video information) (Gill: column 1, lines 25-48 and column 5, line 65-column 6, line 20), the camera view including the at least two media objects in the virtual reality scene (combining a plurality of media objects of multiple diverse types into an integrated presentation) (Gill: column 3, lines 10-15 and 56-62); and rendering the at least one camera view of the virtual reality scene (displaying the presentation including the camera view, i.e. the video information) (Gill: column 1, lines 25-48 and column 5, line 65-column 6, line 20).

6. Claims 18-19, 37-38 and 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gill et al. U.S. Patent 6,081,262 (hereinafter “Gill”) and Lanier et al. U.S. Patent 5,588,104 (hereinafter “Lanier”), as applied to claims 1, 30 and 42 above, and further in view of Autry et al. U.S. Patent 5,724,106 (hereinafter “Autry”).

Referring to claims 18, 37 and 48, Gill and Lanier teach all of the limitations as applied to claims 1, 30 and 42 above. Specifically, Gill and Lanier teach associating sounds with media objects (including audio, or sound objects such as part of a movie, in the multimedia presentation) (Gill: column 1, lines 25-27, column 3, lines 56-65 and column 10, lines 11-21). However, Gill and Lanier fail to explicitly teach playing the soundtrack associated with the media object when a user selects the media object. Autry teaches a graphical user interface for displaying and controlling media objects such as pictures (Autry: column 3, lines 40-44 and column 4, lines 9-11) similar to that of Gill and Lanier. In addition, Autry further teaches

playing the soundtrack associated with the media object when the media object is selected by a user (playing a soundtrack when the user selects the icon by dragging and dropping the icon on a corresponding program) (Autry: column 16, lines 54-67 through column 17, lines 1-4). It would have been obvious to one of ordinary skill in the art, having the teachings of Gill, Lanier and Autry before him at the time the invention was made, to modify the interface for creating multimedia presentations of Gill and Lanier to include playing a soundtrack in response to user selection, taught by Autry. One would have been motivated to make such a combination in order to provide users with more options and control in designating how their created presentation will look and sound.

Referring to claims 19, 38 and 49, Gill, as modified, teach wherein the soundtrack is to be played responsively to movement of the associated media object (playing a soundtrack when the user selects the icon by dragging and dropping the icon on a corresponding program) (Autry: column 16, lines 54-67 through column 17, lines 1-4).

7. Claims 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gill et al. U.S. Patent 6,081,262 (hereinafter “Gill”) and Lanier et al. U.S. Patent 5,588,104 (hereinafter “Lanier”), as applied to claim 53 above, and further in view of Kopelman et al. U.S. Patent 6,664,986 (hereinafter “Kopelman”).

Referring to claim 61, Gill and Lanier teaches all of the limitations as applied to claim 53 above. However, although Gill and Lanier teaches receiving video information from a camera (Gill: column 1, lines 25-48 and column 5, line 65-column 6, line 20), Gill and Lanier fail to explicitly teach wherein the series of views is captured by a camera rotated about a subject of the

media object. Kopelman teaches a virtual three-dimensional display of an object (views of a virtual 3D dental model) (Kopelman: column 2, lines 49-67) similar to that of Gill and Lanier. In addition, Kopelman further teaches wherein the series of views is captured by a camera rotated about a subject of the media object (cameras moving along a coordinate system surrounding a model object) (Kopelman: column 4, line 62-column 5, line 8). It would have been obvious to one of ordinary skill in the art, having the teachings of Gill, Lanier and Kopelman before him at the time the invention was made, to modify the creation of the virtual three dimensional scene from media objects of Gill and Lanier to include the views of an object captured by a camera taught by Kopelman. One would have been motivated to make such a combination in order to provide a user-friendly graphical user interface that will enable even the most in-proficient user to easily view and manipulate three-dimensional images.

Referring to claim 62, Gill, as modified, teach wherein the series of views is captured by a camera directed at a rotated subject of the media object (capturing views of the model via rotation of the model) (Kopelman: column 4, line 32-column 5, line 8).

***Response to Arguments***

8. The examiner respectfully notes that the Board did not rule on the merits of the 35 U.S.C. 103 rejections, therefore, the response to the applicant's arguments in the Examiner Answer mailed on 10/23/06 are maintained and incorporated.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ting Zhou whose telephone number is (571) 272-4058. The examiner can normally be reached on Monday - Friday 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached at (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TZ

/Kieu D. Vu/  
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Primary Examiner